



SERVOMEX
SYSTEMS
CONSULT. DESIGN. DELIVER.

CLEAN
AIR
SOLUTIONS

SOLUTIONS FOR CEMS

LEADING THE WAY TO CLEAN AIR



SERVOMEX.COM

SERVOMEX 
a spectris company

INTEGRATED SOLUTIONS FOR CEMS

Gas analysis plays an essential role in cleaner industrial operations for plants and refineries, helping to ensure more efficient processes, support the safe removal of pollutants, and monitoring the harmful emissions to the atmosphere.

A high-performance continuous emissions monitoring system (CEMS) is crucial to the safety and efficiency of a wide range of industrial processes, and an essential part of clean air strategies.

CEMS installations must offer the highest sensitivity and accuracy when dealing with multiple measurements for pollutants and greenhouse gases.

Servomex's integrated systems team has extensive experience in the creation of CEMS packages that meet all major legislative requirements and optimize operating costs through fast and responsive emissions monitoring.

Integrated systems include the CEM analyzers, rack mounted, sample conditioning systems, probe, filters, calibration and heated line systems and can include the actual shelter.

With a customer-focused approach, these experts design, build and deliver systems that perform exactly as required and are easy to use and maintain, ensuring the best, most reliable solution for each individual process.

KEY BENEFITS FOR OPERATORS

COMPLIANCE WITH EMISSIONS REGULATIONS

- US EPA compliant – 40 CFR part 60 and 40 CFR part 75
- Large combustion plant and waste incineration directives – UK and Europe
- MCERTS – UK approvals
- TÜV – German approvals

GRANT PERMIT TO OPERATE

- States pollutants and allowed emission levels
- Allows specific plant operation provided it meets permit conditions

REDUCED OPERATING COSTS

- Close emissions monitoring quickly identifies process issues and upsets
- Enables rapid solution and hence reduction in operating costs
- Reduces the chance of regulatory emissions fines

GET LINE LOCK ASSURANCE FOR YOUR CLEAN AIR PROCESS

Using fast-response Tunable Diode Laser (TDL) sensing, the SERVOTOUGH Laser 3 Plus Environmental analyzer provides an effective solution for ammonia (NH₃) slip processes used to control NOx emissions.

Installed directly into the process ducts, its signal is averaged across the duct, for a more accurate NH₃ reading, even in variable flow conditions.

Compact and easy to operate, the SERVOTOUGH Laser 3 Plus

Environmental offers many cost and performance benefits, including auto-validation software to guarantee ongoing accuracy.

It also features Servomex's own Line Lock Technology (LLT), which prevents signal drift and ensures the sensor continues to measure the required gas reliably.

Along with ATEX, IECEx and North American hazardous area approvals, it is also approved for process Class 1 Division 2/Zone 2, is SIL 2 assessed, and CE marked.



SERVOFLEX
MiniMP
5200

COMPACT PORTABLE CEMS ANALYSIS

The only truly portable battery-powered gas analyzer with MCERTS and TÜV certification, the SERVOFLEX MiniMP 5200 is designed to offer a measurement of oxygen (O₂) through advanced Paramagnetic sensing technology. Benchmark compliance includes TÜV certification, EN 15627-3

(MCERTS v3.3, Annex F) for O₂ analysis, and source reference method (O₂) to EN 14789, verification of AMS to EN 14181.

It also meets USFDA requirements for verification of medical O₂ (USP) and nitrogen (NF), and is European Pharmacopeia compliant for O₂.



SERVOPRO
4900
Multigas

THE ONLY IR ANALYZER TO MEASURE NO AND NOx SIMULTANEOUSLY

The SERVOPRO 4900 Multigas is the only CEMS analyzer on the market with dual inlet/outlet ports on a single 3U analyzer:

- Real-time reporting with no stream switching required
- Inlet line #1 fitted with NO detector and can add O₂% as well
- Inlet line #2 fitted with an external NOx converter reading the total NOx value directly
- Real-time NO, NOx, NO₂ (difference) reporting at the same time – no valve switching or time delays

DESIGNED FOR CEMS APPLICATIONS THE SERVOPRO 4900 Multigas

Depending on the process, multi-component gas analyzers can either deliver all the key measurements in one device or form a part of an integrated CEMS.

An advanced digital analyzer, the SERVOPRO 4900 Multigas can be configured with a range of sensors, providing up to four simultaneous gas measurements in a single or dual-sample stream configuration, from a choice of oxygen (O₂), carbon dioxide (CO₂), carbon monoxide (CO), sulfur dioxide (SO₂), nitric oxide (NO), methane (CH₄) and nitrous oxide (N₂O).

It has been certified to meet key European Union requirements, including MCERTS (EN 15627-3) and QAL1 (EN 14181) and is compliant to US EPA CEMS performance standards.

BENEFITS

- The only CEMS analyzer with dual input/output streams for NO or CO in separate lines
- Real-time simultaneous NO, NOx, NO₂ (difference) and O₂ in compact 3U design
- Industry's smallest footprint for 3U analyzer measuring three gas components
- Servomex time-proven technologies inside
- Low maintenance, high accuracy, low cross-sensitivity
- Easy-to-use software and GUI for rapid operational and maintenance training
- Easy field repair and upgrades with plug and play sensors, accessories boards, power supplies and electrical boards
- Customized CEMS racks and shelters provided by Servomex Systems Group

FEATURES

- Internal processor for complete stand-alone or remote operations
- Remote, unattended continuous analysis featuring on-board (or external) auto-calibration triggers
- Intuitive icon-driven touchscreen with a "favorites" access button
- User-configurable sensors and ranges
- Plug and Play components and upgrades to sensors, alarms, relays
- Analog and digital I/O communications including Modbus TCP/IP
- High-accuracy T₉₀ response in <30 seconds at 1.5 lpm
- Low cross-interference to %H₂O and %CO₂
- Servomex patented Paramagnetic O₂, Gas Filter Correlation IR and filter-based IR sensors



SERVOTOUGH
Laser 3 Plus
Environmental

AMERICAS

ASIA PACIFIC

CHINA

EUROPE

INDIA

MIDDLE EAST



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